DIVISION OF INDUSTRY SERVICES
PO BOX 7162
MADISON WI 53707-7162
Contact Through Relay
http://dsps.wi.gov/programs/industry-services
www.wisconsin.gov

Scott Walker, Governor
Dave Ross, Secretary

August 05, 2015

CUST ID No. 1293249

ATTN: Plumbing Inspector

ALAN MAST
HELLENBRAND INC
404 MORAVIAN VALLEY RD
WAUNAKEE WI 53597

MUNICIPAL CLERK
TOWN OF MELROSE
N1146 RED SCHOOL RD
MELROSE WI 54642-8205

CONDITIONAL APPROVAL
PLAN APPROVAL EXPIRES: 08/05/2017

Identification Numbers
Transaction ID No. 2584404 **Site ID No. 109690**
Please refer to both identification numbers, above, in all correspondence with the agency.

SITE:
Melrose - Mindoro Schools
N181 State Hwy 108
Town of Melrose, 54642
Jackson County; Fire Dept ID: 2706
NW1/4, SE1/4, S31, T19N, R5W

FOR:
Facility: 109690 MELROSE MINDORO HIGH SCHOOL
N181 HWY 108
MELROSE 54642

Tenant Name or Addn/Alt Description: High School Tech EducationPlan Type: Addition-Alteration; 1 Interior Fixture(s)

Tenant Name or Addn/Alt Description: High School Tech Education
Object Type: Commercial Water Treatment Device Regulated Object ID No.: 1550099

The submittal described above has been reviewed for conformance with applicable Wisconsin Administrative Codes and Wisconsin Statutes. The submittal has been CONDITIONALLY APPROVED. The owner, as defined in chapter 101.01(10), Wisconsin Statutes, is responsible for compliance with all code requirements.

No person may engage in or work at plumbing in the state unless licensed to do so by the Department per s.145.06, stats.

The following conditions shall be met during construction or installation and prior to occupancy or use:

- The G.H. Stenner 30 gallon per day (GPD) flow activated chemical injection pump (E20PHH71S) is the peristaltic positive displacement chemical feed pump that shall be installed. This particular model of Stenner pump is not previously approved by DSPS:

  http://stenner.com/wp-content/uploads/2014/07/IMEFP.pdf

  http://stenner.com/wp-content/uploads/2014/06/FSPECEFP.pdf

  In this instance, DSPS acceptance of this pump is based on its functional similarity to previously approved Stenner pumps.

- The sodium carbonate [(Na_2CO_3) aka "soda ash"] injected into this water supply system shall conform to ANSI/NSF Standard 60 and shall not exceed the listed maximum use concentration. The maximum use concentration for Pro Products LLC "Neutra 5" is 150 mg/l:

  http://info.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=&TradeName=neutra-5&ChemicalName=&ProductFunction=&PlantState=&PlantCountry=&PlantRegion=

Cross connection control, beyond that inherent in the chemical feed pump, is optional.

- Only a locking bypass shall be installed on the chemical injection system.
- All water supply piping shall be labeled as required by Table SPS 382.40-1a.
- The finished installation shall undergo, and pass, a final inspection prior to the treated water being used for consumptive purposes. The Plumbing Consultant having jurisdiction in this area is Bruce Meiners. Mr. Meiners may be reached via the following:

  Phone: 608-399-4156 Email: bruce.meiners@wi.gov

  If the treated water is used for consumptive purposes prior to passing the final inspection, then this approval may be rendered null and void and the treatment system ordered removed. The Plumbing Consultant shall provide a written indication of the results of the final inspection to the system owner. If possible, the Plumbing Consultant will coordinate the final inspection with the Wisconsin Department of Natural Resources (WDNR) Field Staff having authority over the well.

- When the final inspection has been passed, the Plumbing Consultant shall notify the WDNR field staff having authority over this well. The WDNR will then monitor the quality of the treated water to its satisfaction. Monitoring advice, which the WDNR is free to accept or reject, is provided elsewhere in this letter. The WDNR Field Staff having authority over this well is Jason Gazdecki. Mr. Gazdecki can be contacted via the following:

  Phone: 715-284-1456 E-mail: Jason.gazdecki@wisconsin.gov

  The suggested monitoring interval for this installation is monthly until a stable passivating layer has formed on the wetted pipe surfaces which may be inferred from copper and lead concentrations dropping off to below detectable limits. The following tests should be performed:

  1. dissolved copper
  2. dissolved lead
  3. alkalinity; and
  4. pH

  Samples should be collected at a time of day when the chemical injection system is as close to peak demand as possible. Untreated and treated water samples should be collected together in sets. Untreated water samples should be collected upstream of all water treatment devices. Treated water samples should be collected from the most remote outlet possible relative to the point of chemical injection. All sampling should be "first draw" as normally required under the EPA's Lead and Copper Rule.

  It's suggested that copper should be tested first. If copper is detected at elevated concentrations, then the balance of the testing suggested should be run.

  IMPORTANT: Any copper that's exposed prior to the point of chemical injection (e.g. water service/private water main) may remain vulnerable to corrosion and therefore complicate compliance testing and compliance. The structural integrity of the exposed piping may also suffer over the long term.

- Any exterior wall hydrants that are not served by chemical treatment system shall have one, or more, of the following:

  a. The handles of the hydrant shall be removed;

  b. The hydrant shall be capped and sealed using solder; or

  c. Signage shall be posted immediately above he hydrant indicating the water is unfit for human consumption.

  In addition, all hose threaded hose connections shall be protected with vacuum breakers that conform to American Society of Sanitary Engineering (ASSE) standards 1011, 1052 or 1019.

- A complete manual for the chemical feed pump and a safety data sheet (SDS) shall be provided to the system owner and remain onsite.
- The ongoing service and maintenance of this treatment system shall be performed by Bernie Buchner Inc, LaCrosse WI, 608-784-9000.
- The installation of this treatment system shall be performed by a properly licensed Wisconsin Plumber.

A full size copy of the approved plans, specifications and this letter shall be on-site during construction and open to inspection by authorized representatives of the Department, which may include local inspectors. If plan index sheets were submitted in lieu of additional full plan sets, a copy of this approval letter and index sheet shall be attached to plans that correspond with the copy on file with the Department. If these plans were submitted in an electronic form, the designer is responsible to download, print, and bind the full size set of plans along with our approval letter. A department electronic stamp and signature shall be on the plans which are used at the job site for construction. All permits required by the state or the local municipality shall be obtained prior to commencement of construction/installation/operation.

In granting this approval the Division of Industry Services reserves the right to require changes or additions should conditions arise making them necessary for code compliance. As per state stats 101.12(2), nothing in this review shall relieve the designer of the responsibility for designing a safe building, structure, or component.

Inquiries concerning this correspondence may be made to me at the telephone number listed below, or at the address on this letterhead.

Sincerely,

Glen W Schlueter
Plumbing Product Reviewer , Division of Industry Services
(608)267-1401 , Monday-Thursday 7:00AM-4:00PM
Friday 8:00AM-12:00PM
glen.schlueter@wisconsin.gov

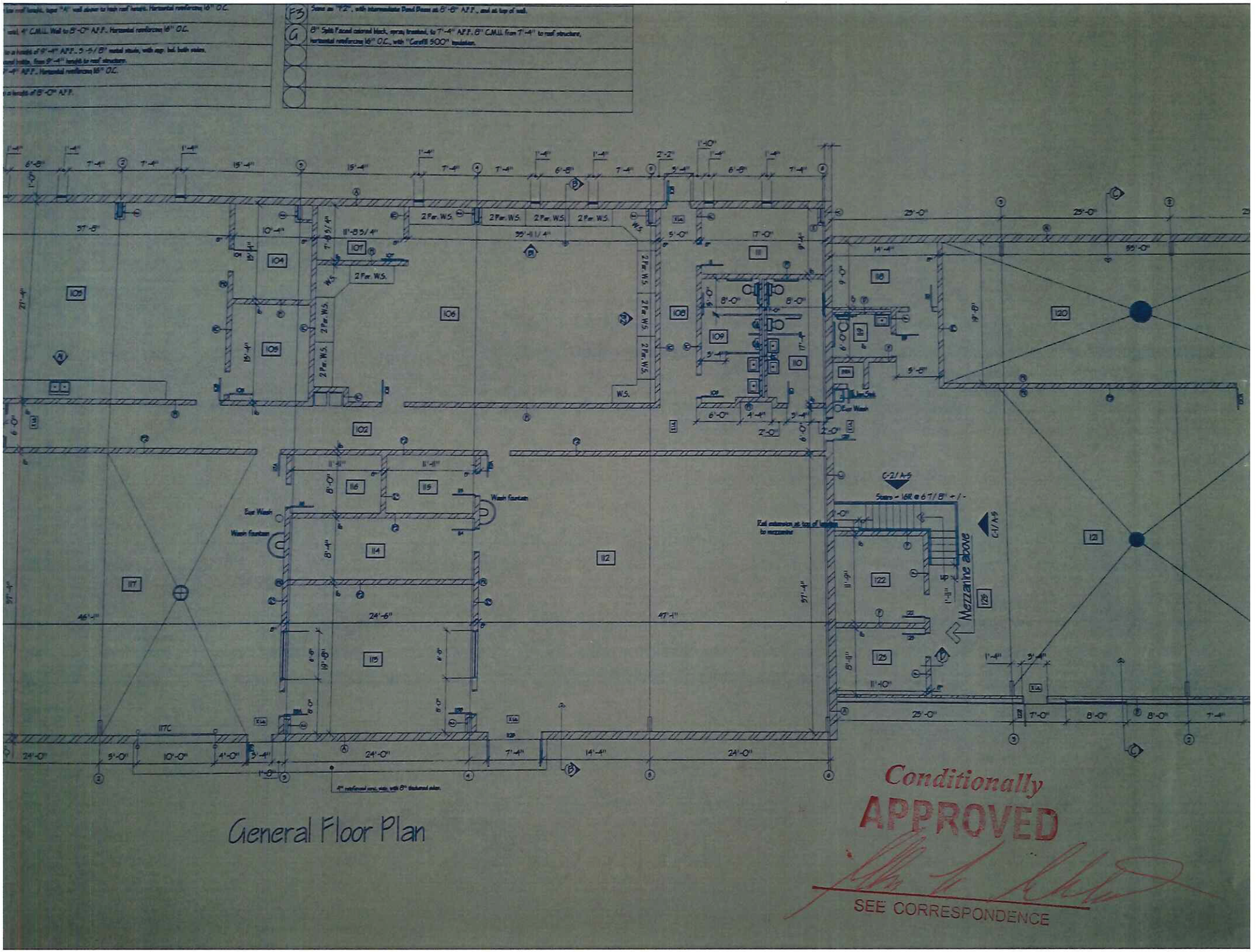
Fee Required $ 160.00

This Amount Will Be Invoiced.
When You Receive That Invoice,
Please Include a Copy With Your
Payment Submittal.
WiSMART code: 7657

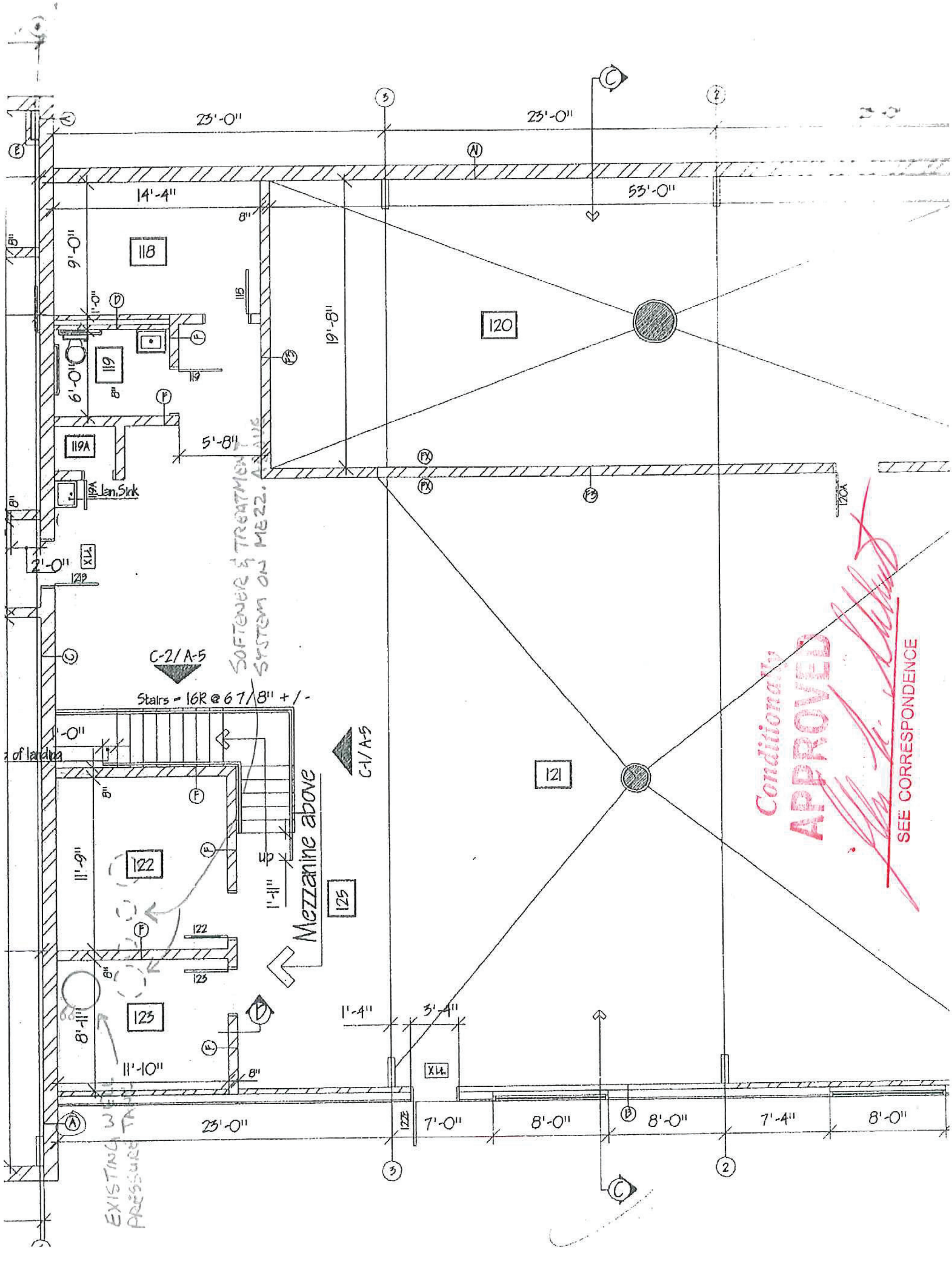
cc: Bruce Emerson Meiners, Plumbing Consultant, (608) 399-4156 , Mon - Fri 8:00 am - 4:30 pm
Mark Roberts, Melrose Mindoro School Dist
James N Wagner , Bernie J Buchner Inc

Note: Effective January 1, 2012, all codes under the jurisdiction of the Division of Industry Services (formerly Safety & Buildings) will be modified. Code references with prefixes starting with "Comm" have been replaced with "SPS" to recognize the relocation of the Division of Industry Services from the former Department of Commerce to the Department of Safety & Professional Services. Additionally, all IS (formerly S&B) codes have been renumbered and addressed in a "300" series. For future reference, the Wisconsin Commercial Building Code will be addressed by SPS Chapters 360-366.

Conditionally
APPROVED
SEE CORRESPONDENCE



General Floor Plan


23'-0"
23'-0"
14'-4"
53'-0"
9'-0"
19'-8"
6'-0"
5'-8"
118
119
119A
120
121
122
123
125
Jan. Sink
2'-0"
Stairs - 16R @ 6 7/8" + / -
C-2/ A-5
C-1/ A-5
Mezzanine above
SOFTENER & TREATMENT SYSTEM ON MEZZ. ABOVE
11'-9"
1'-11"
8'-11"
11'-10"
1'-4"
3'-4"
7'-0"
8'-0"
8'-0"
7'-4"
8'-0"
EXISTING WELL PRESSURE TANK
Conditionally APPROVED
SEE CORRESPONDENCE

3. Isometric Drawing

Three Copies Required

7/30/15

Date

Alan G. Mast, WI PE # 19002-6

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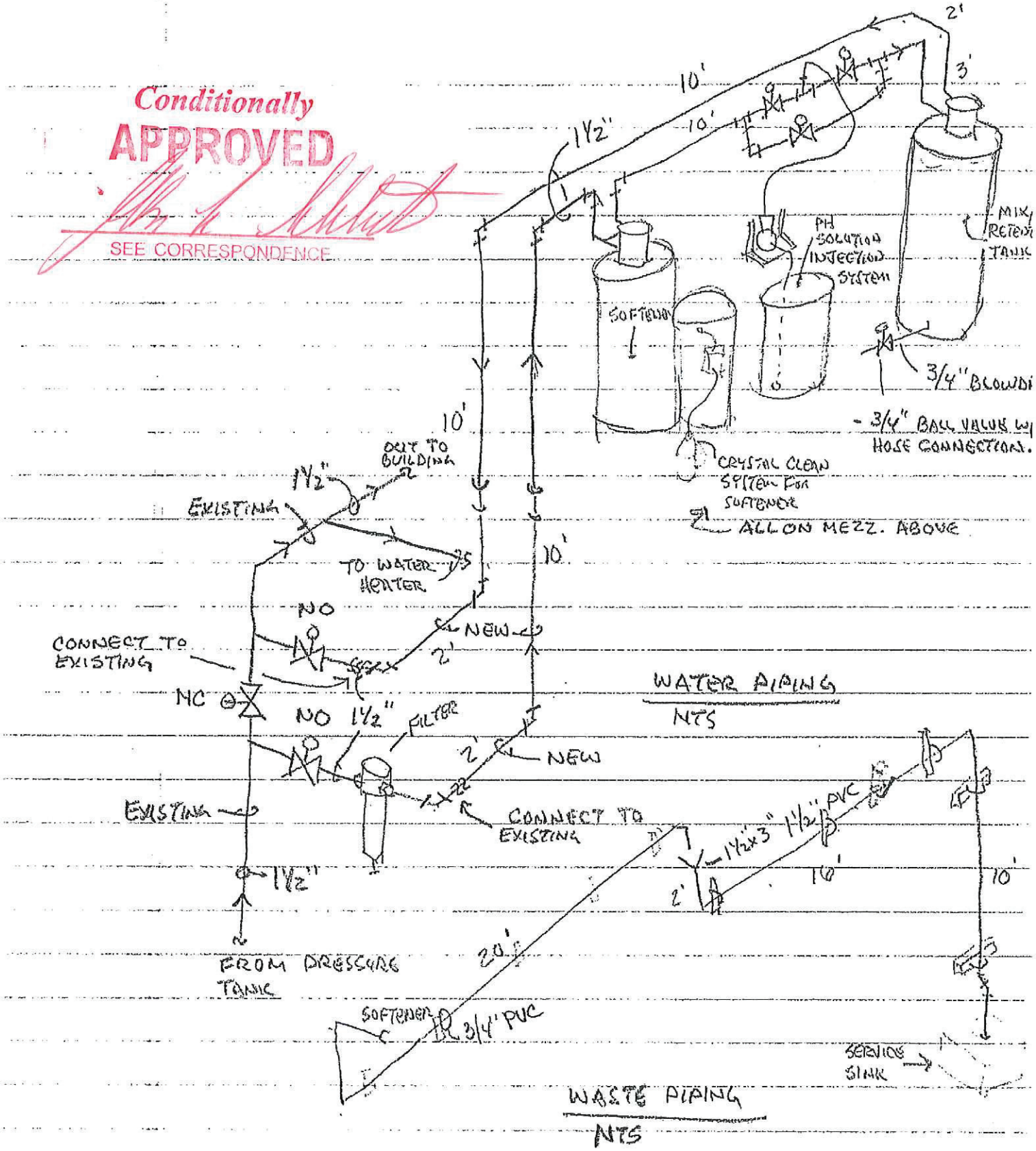

RECEIVED
AUG 05 2015
INDUSTRY SERVICES

NEL-MIN SCHOOLS
TECH-ED BUILDING

4. Water Calculation Worksheet

Three Copies Required

7/30/15

Date

Alan G. Mast, WI PE # 19002-6

Water Calc. Worksheet Melrose Mendoro H.S. Tech Educatioin

Name of Project

INFORMATION REQUIRED TO SIZE WATER SERVICE AND WATER DISTRIBUTION:

1-	Demand of building in water supply fixture units (WSFU);	(WSFU)	58.5
1.a.	Demand of building in WSFU converted to Gallons Per Minute: (Table SPS 382.40-3)	(GPM)	31.4
2-	Elevation difference from main or external pressure tank to building control valve; (feet		10
3-	Size of water meter (when required) 5/8"____ 3/4" ____ 1" ____ other ____		na
4-	Developed length from main or external pressure tank to building control valve;	(feet)	15
5-	Low pressure at main in street or external pressure tank.	(psi)	45

CALCULATE WATER SERVICE PRESSURE LOSS

(unnecessary for internal pressure tanks)

6-	Low pressure at main in street or external pressure tank. (value of # 5 above)		45
7-	Determine pressure loss due to friction in 1.5" inch diameter water service. Water service piping material is Copper Pressure loss per 100 ft. = 3.5 X 0.15 (decimal equivalent of service length, i.e. 65 ft = 0.65)	**Subtract value of "7"**	0.53
		Subtotal	44.47
8-	Determine pressure loss or gain due to elevation, (multiply the value of # 2 above by .434)	**Subtract value of "8"**	4.34
9-	Available pressure after the bldg. control valve.	Subtotal	40.36

CALCULATE THE PRESSURE AVAILABLE FOR UNIFORM LOSS (VALUE OF "A")

B.	Available pressure after the bldg. control valve. (from "9" above)	Value of "B"	40.36
C.	Pressure loss of water meter (when meter is required)	**Subtract value of "C"**	0.0
		Subtotal	40.36
D.	Pressure at controlling fixture*. (Controlling fixture is: Service Sink). (*Contolling fixture is the fixture with the most demanding pressure to operate properly which includes the following when determining fixture performance; loss due to instantaneous water heaters, water treatment devices, and backflow preventers which serve the controlling fixture.)	**Subtract value of "D"**	15
		Subtotal	25.36
E.	Difference in elevation between building control valve and the controlling fixture in feet; 1 X .434 psi/ft.	**Subtract value of "E"**	0.44
		Subtotal	24.92

Water Calc Worksheet Melrose Mendoro H.S. Tech Educatioin

Name of Project

F. Pressure loss due to water treatment devices and backflow preventers which serve the controlling fixture. (Water softeners, filters, etc.)

(Pressure loss due to; Water Softener & retention/mixing).

F1. WSFU Downstream of Water Treatment Device; 58.5

F2. Convert wsfu to GPM using **Table 382.40-3**: 31.4

or

F3. Convert wsfu to GPM using **Table 382.40-3e*** _____

(For individual dwellings only)

F4. Refer to manuf. graph to obtain pressure loss: 23

(If no water treatment device enter "0")

Subtract value of F4 23

Subtotal 1.92

G. Pressure loss through tankless water heaters, combination boiler / hot water heaters, heat exchangers which serve the controlling fixture;

Hot water WSFU's; _____ convert to; GPM = _____ (Table 382.40-3)

Refer to manufacturer's pressure loss graph to determine loss at the required GPM;

_____ pressure loss. **Subtract value of "G"** 0

Subtotal 1.92

H. Developed length from building control valve to controlling fixture in feet 48 X 1.5 **Divide by value "H"** 72

Subtotal 0.02667

Multiply by: 100

A. Pressure available for uniform loss **"A" =** 2.67

Water distribution piping is: Copper

*Note: The "A" value obtained by using Table 382.40-3e can only be used for an individual dwelling when sizing the water treatment device (water softeners, etc) and no hose bibbs, hydrants, or high flow fixtures are being served by the water treatment device.

Note: High flow fixtures are defined as fixtures that exceed a flow rate of 4 gpm @ 80 psi, and water velocity not exceeding 8 ft. per second.

Conditionally APPROVED

SEE CORRESPONDENCE

HELLENBRAND, INC.
FIXTURE ANALYSIS
JOB & CUSTOMER: MELROSE MINDORO
VOCATIONAL BUILDING

GALLONS PER MINUTE

TYPE OF FIXTURE	QTY	HOT	QTY	COLD	QTY	TOTAL	FIX UNTS
auto clths wshr, indiv.		2.00		2.00		3.00	0
auto clths wshr, lg cap						3.00	0
bathtub, w or w/o show hd		2.00		2.00		3.00	0
coffeemaker				0.50		0.50	0
dishwasher, commercial						1.00	0
drink dispenser				0.50		0.50	0
drinking fountain				0.25	2	0.25	0.5
eye wash stations, connected to H2O supply				0.50	2	0.50	1
hose: 1/2" diameter				3.00		3.00	0
3/4" diameter				4.00	8	4.00	32
icemaker				0.50		0.50	0
lavatory		0.50		0.50	7	1.00	7
shower, per head		2.00		2.00		3.00	0
sinks: bar & fountain		1.50		1.50		2.00	0
barber & shampoo		1.50		1.50		2.00	0
bed pan washer				2.00		2.00	0
cup				0.50		0.50	0
flushing rim				7.00		7.00	0
hand wash		0.50		0.50	2	1.00	2
kit. & food prep., per faucet		2.00		2.00		3.00	0
kitchen kettle fill faucet				2.00		2.00	0
							0
laboratory		1.00		1.00		1.50	0
medical exam & treatment		1.00		1.00		1.00	0
service		2.00		2.00		3.00	0
surgeon wash-up		1.50		1.50		2.00	0
urinal: siphon jet				4.00		4.00	0
washdown				2.00	2	2.00	4
wall hydrant, hot & cold mix 1/2" d		2.00		2.00		3.00	0
3/4" d		3.00		3.00		4.00	0
wash fountain: semicircular		1.50		1.50		2.00	0
circular		2.00		2.00		3.00	0
water closet: flushometer		0.00		7.00		7.00	0
gravity type flush tk				3.00	4	3.00	12

Total WSFU's	58.5

(2) outside hosebibs used for watering & pressure washing carpets. (2) are for bus washing No pool, no showers in this building, not actual high school building, metalworks, arts, bus maintanence bldg

Peak GPM Demand **31.4**

	SFU	GPM
Next Larger SFU/GPM	60	32
NextSmaller SFU/GPM	50	28

FIX UNTS	FOM-SJU	FT-WU
1		1
2		2
3		3
4	10	4
5	15	4.5
6	18	5
7	21	6
8	24	6.5
9	26	7
10	27	8
20	35	14
30	40	20
40	46	24
50	51	28
60	54	32
70	58	35
80	62	38
90	65	41
100	68	42
120	73	48
140	78	53
160	83	57
180	87	61
200	92	65
250	101	75
300	110	85
400	126	105
500	142	125
600	157	143
700	170	161
800	183	178
900	197	195
1000	208	208
1250	240	240
1500	267	267
1750	294	294
2000	321	321
2250	348	348
2500	375	375
2750	402	402
3000	432	432
4000	525	525
5000	593	593

FIXTURE